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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,325	03/29/2004	Rick A. Aberle	34852	2723
<div>7590      08/23/2007</div> <div>Hovey Williams LLP Suite 400 2405 Grand Boulevard Kansas City, MO 64108</div>				
			EXAMINER MALEKZADEH, SEYED MASOUD	
			ART UNIT 1722	PAPER NUMBER
			MAIL DATE 08/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/812,325	<b>Applicant(s)</b> ABERLE ET AL.	
	<b>Examiner</b> SEYED MALEKZADEH	<b>Art Unit</b> 1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) 4, 7 and 31-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 8-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/27/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

Election of Group I (claims 1-15 and 31-37) and election of species A (claim 3) without traverse in response file dated on July 3<sup>rd</sup>, 2007 is acknowledged.

Claims 16-30 (Group II) and claims 4, 7, and 31-37 drawn to nonelected species B are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II and species B, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 3<sup>rd</sup>, 2007.

Therefore, Claims 1-3, 5-6, and 8-15 has been considered for the following examination.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-6 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 recites the limitation "a feeder" in 2<sup>nd</sup> line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "said selected product" in first line of claim. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction/modification is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-6, and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Bebiak et al. (US 6,358,546)

As to claim 1, Bebiak et al. ('546) teach an extrusion system having an extruder (116) with a material inlet and an outlet (118) (See figure 1 and lines 1-8, column 5), an apparatus (14) for delivering material to be extruded to the inlet (See lines 65-67, column 4), and a dryer (122) coupled with the outlet (118) for receiving and drying of the extrudate. (See figures 1)

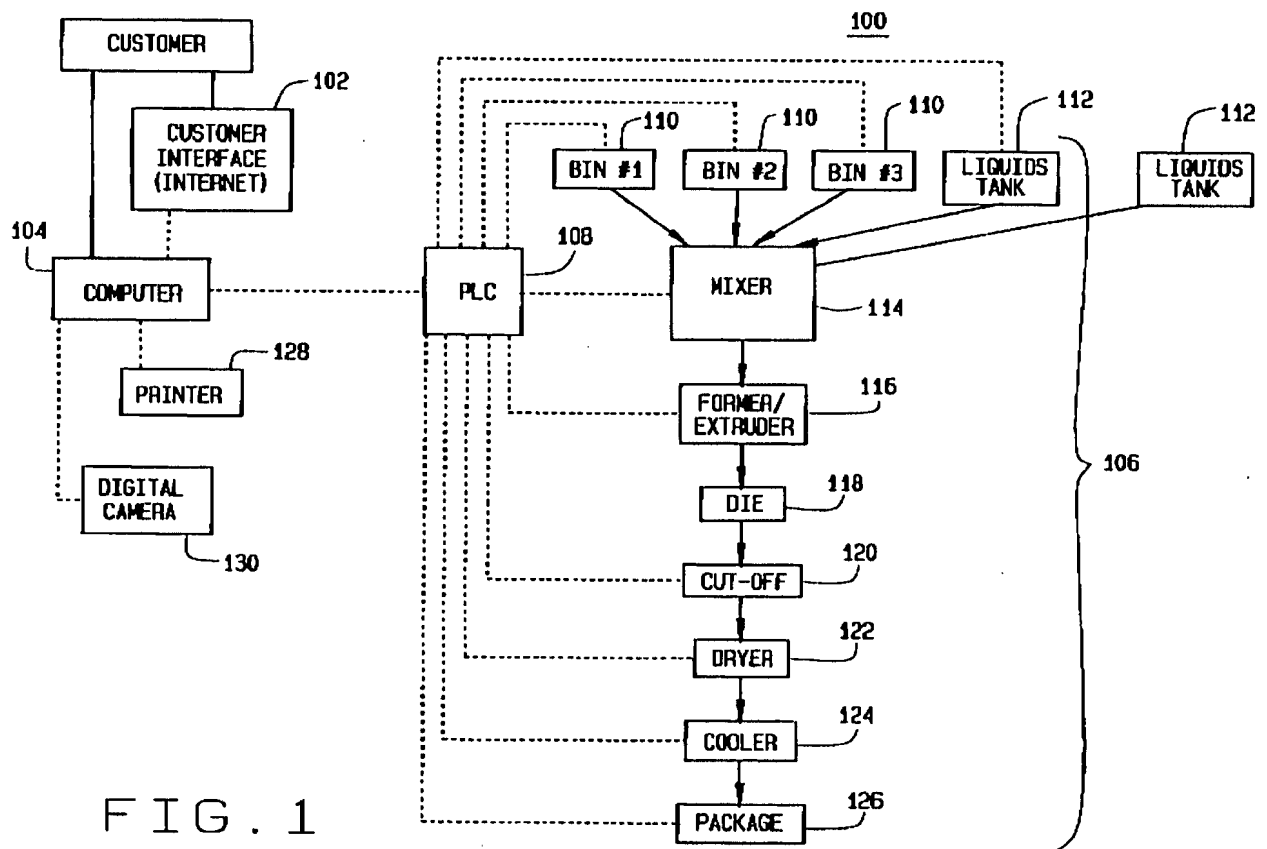


FIG. 1

Further Bebiak et al. ('546) teach a first analyzer coupled with delivering apparatus (114) a second analyzer coupled with extruder (116) and a third analyzer coupled with the dryer. A controller (108) connected with the first and second and third analyzers and with delivering apparatus (114), extruder (116), and dryer (122). Controller receives analysis data from analyzers and to adjust the operation of delivering apparatus, extruder, and dryer to create a desired product from dryer.

As to claim 5, Bebiak et al. ('546) also teaches a feeder (114) adapted to receive incoming raw materials (Bin # 1- 3 and liquids tanks) and to deliver raw materials to the

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extruder inlet, first analyzer to analyze a selected characteristic of incoming material such as moisture content. (See lines 18-26 and lines 33-35, column 5)

As to claims 6 and 8, Bebiak et al. ('546), also discloses selected property of extrudate are selected from the group consisting of moisture content or fat content. (See lines 46-50, column 4; lines 18-26 and lines 33-35, column 5)

As to claim 9, Bebiak et al. ('546), further, disclose dryer (122) including an inlet for receiving extrudate from said extruder (116), a drier chamber and an outlet for dried extrudate. (See lines 24-29 and lines 42-46 column 5)

As to claim 10, Bebiak et al. ('546), further, disclose selected product of the extrudate during or after drying thereof selected from the group consisting of moisture content. (See lines 18-25, column 5)

The prior art of Bebiak et al. ('546), therefore, anticipate the claims 1, 5-6, and 8-10.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

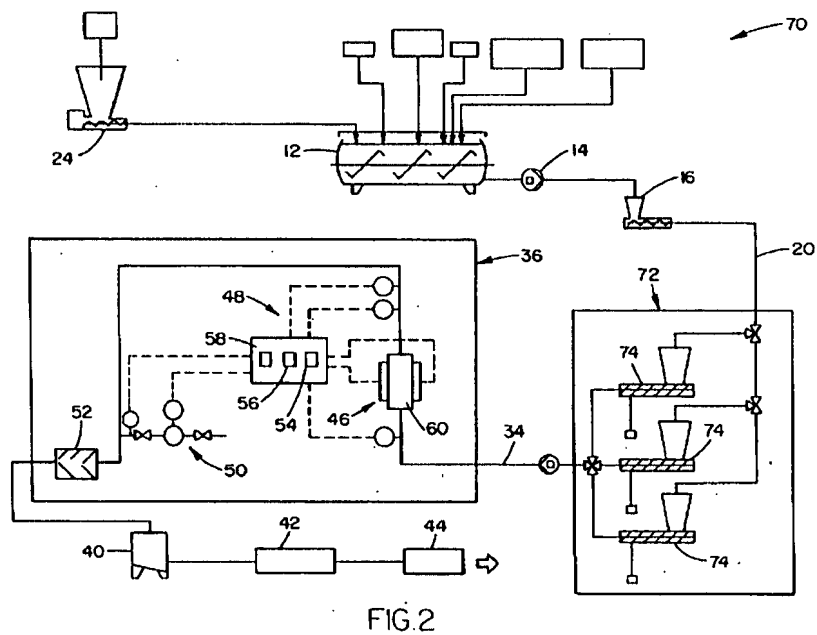
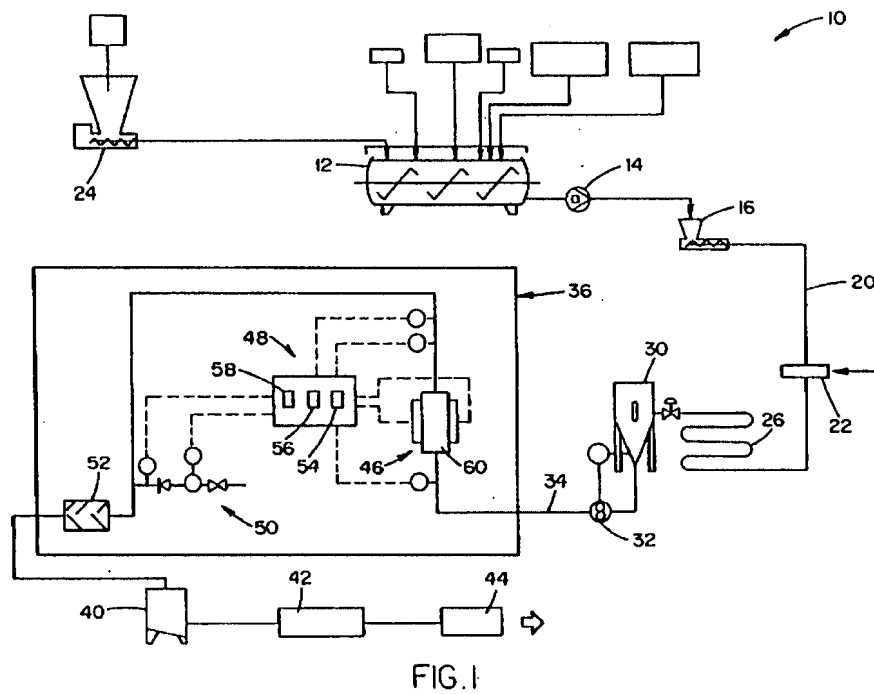
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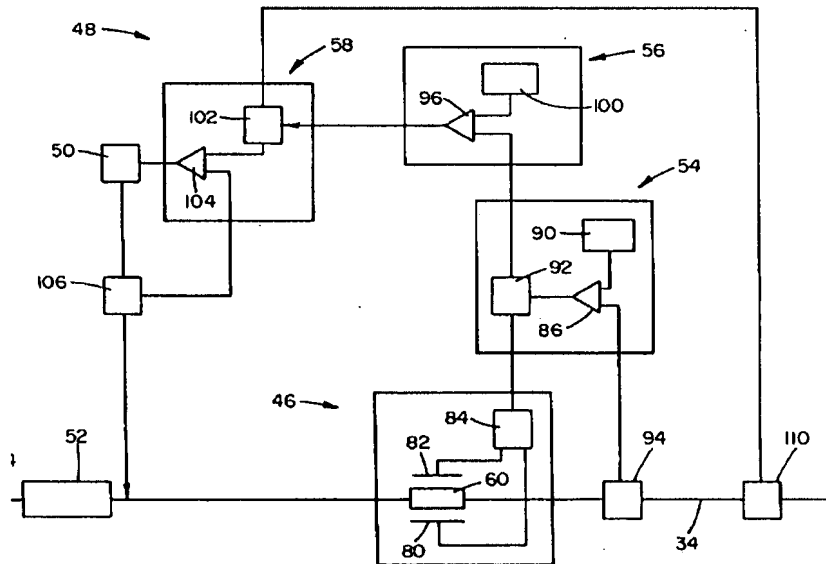
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bebiak et al ('546) in view of Kopp et al ('595).

Bebiak et al. ('546) teaches all the structural limitations as discussed above for claims 1, 5-6, and 8-10, however, Bebiak et al. ('546) do not teach analyzers are a transmitting probe operable to generate a signal to pass through a cross-section of the material being analyzed, and a receiver probe in opposed relationship to the transmitter probe to receive signal, as to claim 2. Further, Bebiak et al. ('546) do not teach analyzers are selected from the group consisting of microwave, infrared, or X-ray analyzers, as to claim 3.

In the analogous art, Kopp et al ('595) discloses a system for processing cheese products wherein system include a control system (36) with measuring means (46) includes measuring cell (60), microwave transmitter (80), microwave receiver (82), and processor (84). Signal processing means (54) includes comparator (86), set-point generator (90), processor (92) and sensor or probe (94). (See figures 1-3, lines 61-67, column 4)





Further, Kopp et al ('595) disclose the advantages of system of the invention to improve controlling of the moisture content and also to provide a high uniformity of the product. (See lines 6-14, column 2)

Therefore, It would have been obvious for one of ordinary skill in the art at the time of applicant's invention to modify Bebiak et al ('546) apparatus structure by providing a transmitter and receiver probe in the microwave analyzer in order to improve detection capability of analyzers and also to effectively control the moisture and uniformity of the final product, as suggested by Kopp et al ('595).

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bebiak et al ('546) in view of Huber et al (US 2001/0015138).

Bebiak et al. ('546) teaches all the structural limitations as discussed above for claims 1, 5-6, and 8-10, however, Bebiak et al. ('546) fails to suggest a plurality of individual analyzers coupled adjacent dryer inlet, dryer outlet, and at least one region

within drying chamber, as to claim 11, and also do not suggest drying chamber includes multiple drying flights, as to claim 12.

In the analogous art, Huber et al. ('138) disclose a low shear extrusion and dehydrating apparatus for the continuous extrusion of various starting materials such as starch-bearing grains or starch fractions thereof, proteinaceous materials and/or nutraceuticals. Huber et al. ('138) further teach the apparatus (10) includes an elongated extruder (18) together with a tubular die assembly (20) coupled to the outlet of the extruder barrel (32). In another embodiment, the apparatus (10) further includes a dehydration assembly (14) having an agitator (56) coupled to a drying or dehydrating tower (66) as a dryer for drying the extrudate material. (See figure 1 and abstract)

Furthermore, Huber et al. ('138) discloses pluralities of analyzers are coupled adjacent dryer inlet, dryer outlet, and at least one region within drying chamber. (See paragraph [0050]-[0051] and [0056])

Moreover, Huber et al. ('138) teaches drying tower includes multiple drying stages as drying flights wherein the analyzer coupled in the dryer continuously monitor the properties of food material inside of the dryer. (See paragraphs [0043] and [0056])

Further, Huber et al. ('138) discloses the advantages of a low shear extrusion and dehydrating apparatus to prevent protein complexation or degradation of proteins and vitamins, and the effect of minimizing shear related problems in improvement of the extrusion apparatus. (See paragraphs [0006] - [0008])

It would have been obvious for one of ordinary skill in the art to modify the structure apparatus of Bebiak et al. ('546) by including a plurality of analyzers coupled

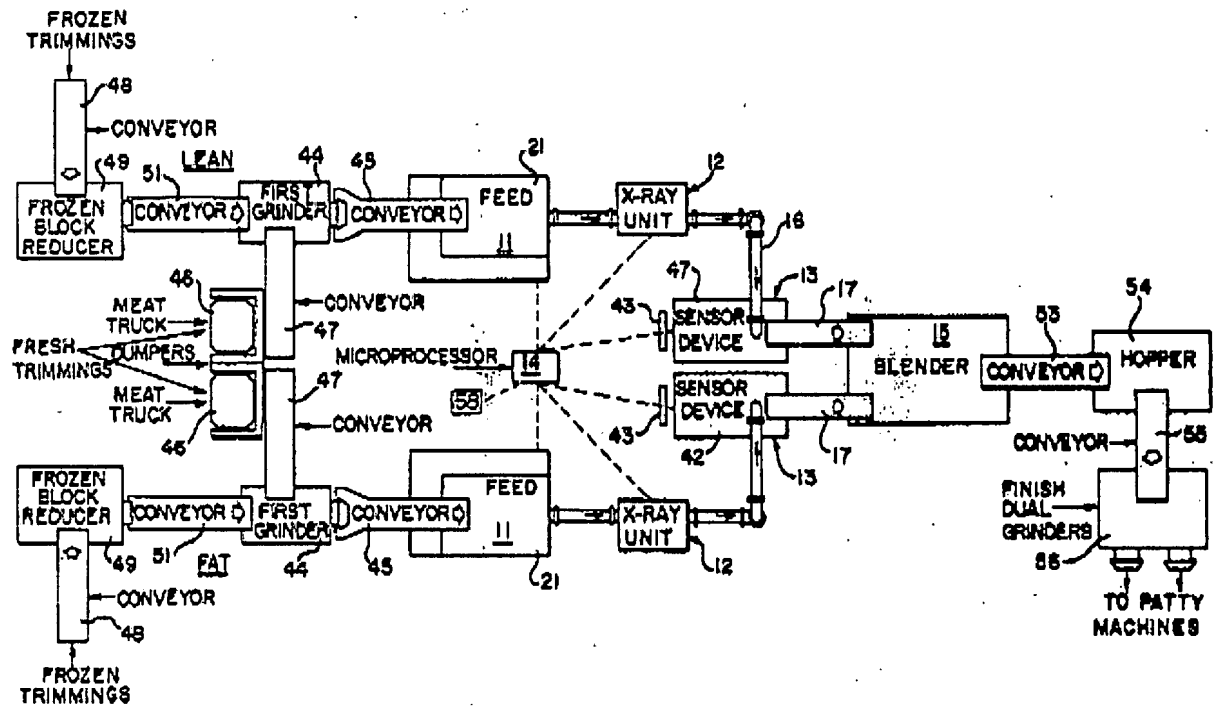
adjacent dryer inlet, dryer outlet, and within dryer and also including drying chamber by multiple drying flights in order to minimize shear related problems in extrusion apparatus and also to improve dehydration or degradation of proteins and vitamins or other nutraceuticals, as suggested by Huber et al. ('138).

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bebiak et al. ('546) in view of Groves et al ('164).

Bebiak et al. ('546) teaches all the structural limitations as discussed above for claims 1, 5-6, and 8-10. However, Bebiak et al. ('546) do not teach a system including a blending device wherein an analyzer is coupled with blending device as to claim 13. Further Bebiak et al. ('546) do not teach fourth analyzer selected from the group consisting of microwave, infrared, X-ray, or ultrasound analyzers to detect property selected from the group consisting of moisture content, protein content, fat content, starch content, particle size, color, or contaminants, as to claims 14 and 15.

In the analogous art, Groves et al ('164) teach an apparatus for formulating meat blends to a desired fat percentage by continuously measuring fat percentage of the blend in a non-destructive manner, and there after blending the streams into the desired formulation. (See abstract)

Groves et al ('164), further, discloses the apparatus includes one or more feed means (11), one or more continuous X-ray analysis units (12), one or more sensor devices (13), a microprocessor (14) and a blender (15) in communication with each other through suitable conventional conduits (16) and conveyors (17). (See figure 1; and lines 1-10, column 3)



Moreover, Groves et al ('164) disclose a blending device wherein blending device is operable to deliver feeding material to conveyor (53) and from there to Hopper (54). An X-ray analysis unit (12) incorporates radiation to determine the fat percentage of a moving meat stream as it passes through a pipe of known size wherein and a sensor (13) that automatically and continuously monitors the meat streams wherein X-ray analysis unit (12) and sensors (13) are as an analyzers and determine the fat percentage of meat. (See Figure 1; lines 47-50, column 3)

Moreover, Groves et al ('164) discloses device relies on continuously measuring a uniform sample of a meat flow, and also to improve monitoring the fat content of streams of meat in a manner that accounts for non-uniformities in the streams by X-ray beams and a sensor. (See lines 15-19 and lines 28-35, column 4)

Therefore, It would have been obvious for one of ordinary skill in the art to modify apparatus structure of Bebiak et al. ('546) by including a blending device wherein an analyzer is coupled with blending device to analyze the physical property of food material in order to provide a uniformity in the food material flow and also to continuously determining the fat percentage of food streams, as suggested by Groves et al ('164).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Masoud Malekzadeh whose telephone number is 571-272-6215. The examiner can normally be reached on Monday – Friday at 8:30 am – 5:00 pm.

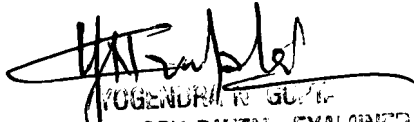
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on (571) 272-1316. The fax number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

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Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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